

AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Currently amended) The process according to claim-1 A process for producing CMP-N-acetylneuraminic acid (CMP-NeuAc), wherein the process which comprises adding N-acetylglucosamine-6-phosphate 2-epimerase (GlcNAc-6P 2-epimerase) and N-acetylneuraminic acid lyase (NeuAc lyase) to a reaction system containing N-acetylglucosamine (GlcNAc) and pyruvate, to thereby synthesize N-acetylneuraminic acid (NeuAc), and subsequently adding, to the resultant reaction system, cytidine 5'-monophosphate (CMP), yeast cells, and cytidine 5'-monophosphate N-acetylneuraminic acid synthase (CMP-NeuAc synthase), to thereby synthesize CMP-N-acetylneuraminic acid (CMP-NeuAc).

3. (Currently Amended) The process according to claim-1, wherein cells which express GlcNAc-6P 2-epimerase, NeuAc lyase and/or CMP-NeuAc synthase, or processed products thereof, are employed as the GlcNAc-6P 2-epimerase, NeuAc lyase, and/or CMP-NeuAc synthase.

4. (Currently Amended) The process according to claim-1, which employs a transformant which expresses GlcNAc-6P 2-epimerase, a transformant which expresses NeuAc lyase, and a processed product of cells as the CMP-NeuAc synthase.

5. (Original) A process for producing CMP-N-acetylneuraminic acid (CMP-NeuAc), which comprises adding yeast cells, N-acetylglucosamine-6-phosphate 2-epimerase (GlcNAc-6P 2-epimerase), N-acetylneuraminic acid synthase (NeuAc synthase), and CMP-N-acetylneuraminic acid synthase (CMP-NeuAc synthase) to a reaction system containing N-acetylglucosamine (GlcNAc) and cytidine 5'-monophosphate (CMP), and inducing reaction of the mixture.

6. (Previously presented) The process for producing CMP-N-acetylneuraminic acid (CMP-NeuAc) according to claim 5, wherein cells which express GlcNAc-6P 2-epimerase, NeuAc lyase and/or CMP-NeuAc synthase, or processed products thereof, are employed as the GlcNAc-6P 2-epimerase, NeuAc synthase, and/or CMP-NeuAc synthase.

7. (Previously presented) The process according to claim 5, which employs a transformant which expresses GlcNAc-6P 2-epimerase, a transformant which expresses NeuAc synthase, and a processed product of cells having CMP-NeuAc synthase activity as the CMP-NeuAc synthase.

8. (New) The process according to claim 2, further comprising adding an inorganic phosphoric acid, magnesium, and an energy source to the resultant reaction system.

9. (New) The process according to claim 5, further comprising adding an inorganic phosphoric acid, magnesium, and an energy source to the reaction system.